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COMMITMENT & INTEGRITY DRIVE RESULTS

Monthly Operating REPORT

Monmouth, Illinois

Department of
Public Works

April 2017

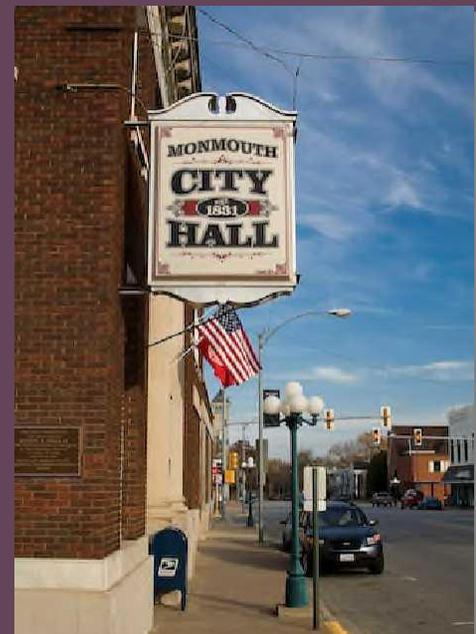


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EXECUTIVE SUMMARY

The April Public Works monthly report provides an overview of the month's activities and statistical data including: wastewater treatment effluent quality, water production, billing and collection statistics for municipal services, maintenance activities, maintenance and repair costs vs. monthly thresholds, water treatment chemical costs, overall project cost and performance to annual budget.

Feel free to stop by the office or give me a call, 309-734-4026.

Regards, Andy

1. WASTEWATER TREATMENT

The Consolidated WWTP treated and discharged 189 million gallons of wastewater in the month of April. An additional 37 million gallons of wastewater was treated and discharged through the excess flow plant. There were 6 combined sewer overflow events in April. The weather station at the plant reported 6.3” of rainfall during the month. The Consolidated Plant continues to produce excellent effluent quality. The table below outlines the water quality vs. NPDES permit limits.

Table 1-1: Water Quality vs. NPDES Permit Limits

	Monthly Average	Permit Limit
Flow (MGD)	6.3	4.62
Ammonia N mg/l	0.1	1.5
CBOD5 mg/l	1	10
Chlorides mg/l	232	500
Suspended Solids mg/l	5	12
Total Phosphorus	0.8	1.0

2. WATER TREATMENT

The water treatment plants produced 74 million gallons of finished water in April. Finished water quality met all standards per the Clean Water Act for drinking water. The table below outlines the chemical usage for ion exchange softening for the month.

Table 2-1: Monthly Chemical Usage for Ion Exchange Softening

	Daily Average	Monthly Total
Treated Water to System	2.48 MG	74 MG
Poly Phosphate Usage-lbs.	82	2,446 lbs
Salt Usage — tons	4.8	143 tons
Chlorine Usage - lbs.	99	2,955 lbs

3. BILLING AND COLLECTION

Table 3-1: Billing/Collection

The table below outlines the revenue collected for the month of April from the Municipal Services billings.

PAYMENTS APRIL 2017										
DATE	PAYMENTS	WATER	SEWER	LANDFILL	RECYCLE	GARBAGE	YARD WASTE	FARM BONDS	FARM SURCHARGE	PENALTY
04/03/17	\$31,354.61	\$13,747.67	\$9,605.32	\$2,382.11	\$1,612.08	\$3,710.66	\$290.79	\$0.00	\$0.00	\$5.98
04/04/17	\$11,534.79	\$5,033.09	\$3,322.07	\$900.23	\$609.67	\$1,548.11	\$121.62	\$0.00	\$0.00	\$0.00
04/05/17	\$60,652.50	\$27,609.13	\$21,848.88	\$3,289.60	\$2,246.68	\$5,241.96	\$407.43	\$0.00	\$0.00	\$8.82
04/06/17	\$16,854.61	\$7,542.73	\$5,728.59	\$1,049.88	\$705.70	\$1,694.22	\$132.03	\$0.00	\$0.00	\$1.46
04/07/17	\$64,074.77	\$23,126.23	\$17,912.73	\$2,205.16	\$1,482.57	\$3,207.62	\$251.10	\$15,886.40	\$0.00	\$2.96
04/10/17	\$69,875.59	\$31,799.33	\$22,949.56	\$4,437.63	\$2,989.91	\$7,130.62	\$555.21	\$0.00	\$0.00	\$13.33
04/11/17	\$129,778.89	\$66,012.71	\$62,572.21	\$314.37	\$210.11	\$492.43	\$39.50	\$0.00	\$0.00	\$137.56
04/12/17	\$5,809.36	\$2,375.60	\$1,759.99	\$417.99	\$279.36	\$713.92	\$55.89	\$0.00	\$0.00	\$206.61
04/13/17	\$7,504.81	\$3,156.47	\$2,272.39	\$636.92	\$425.82	\$693.23	\$53.46	\$0.00	\$0.00	\$266.52
04/14/17	\$6,407.46	\$2,621.01	\$1,979.24	\$467.57	\$312.52	\$757.87	\$58.32	\$0.00	\$0.00	\$210.93
04/17/17	\$10,443.35	\$4,206.30	\$3,029.86	\$700.08	\$475.88	\$1,553.98	\$119.88	\$0.00	\$0.00	\$357.37
04/18/17	\$6,519.60	\$2,757.99	\$1,927.41	\$469.28	\$313.66	\$771.04	\$59.13	\$0.00	\$0.00	\$221.09
04/19/17	\$3,171.72	\$1,227.97	\$912.27	\$258.59	\$172.82	\$457.97	\$35.95	\$0.00	\$0.00	\$106.15
04/20/17	\$5,416.77	\$2,249.88	\$1,631.69	\$390.71	\$261.13	\$654.59	\$48.08	\$0.00	\$0.00	\$180.69
04/25/17	\$1,392.16	\$563.75	\$365.09	\$138.20	\$87.66	\$186.46	\$15.35	\$0.00	\$0.00	\$35.65
04/27/17	\$4,258.32	\$1,742.82	\$1,244.87	\$367.35	\$241.67	\$609.67	\$47.50	\$0.00	\$0.00	\$4.44
04/28/17	\$6,838.42	\$2,952.55	\$1,824.50	\$613.37	\$417.14	\$956.14	\$74.52	\$0.00	\$0.00	\$0.20
	\$0.00									
	\$0.00									
TOTAL	\$441,887.73	\$198,725.23	\$160,886.67	\$19,039.04	\$12,844.38	\$30,380.49	\$2,365.76	\$15,886.40	\$0.00	\$1,759.76

4. ESTIMATED ANNUAL COST

Table 4-1: Estimated Annual Budget – Year 4

Budget Category	Month Budget	Month Actual	YTD Budget	YTD Actual	Annual Budget
Labor (D.L. + FB)	\$124,386	\$112,694	\$1,492,633	\$1,374,565	\$1,492,633
Utilities	\$2,500	\$3,052	\$30,000	\$38,044	\$30,000
Chemicals Costs	\$22,667	\$28,378	\$272,000	\$276,180	\$272,000
Maintenance and Repair Costs	\$27,833	\$146,210	\$334,000	\$468,511	\$334,000
Sludge Disposal Costs	\$0	\$5,000	\$0	\$10,000	\$0
Lab Supplies & Equipment	\$3,375	\$7,584	\$40,500	\$40,368	\$40,500
Office Supplies	\$1,500	\$1,838	\$18,000	\$21,124	\$18,000
Miscellaneous Expenses	\$5,017	\$7,161	\$60,200	\$69,220	\$60,200
Other Operating Costs	\$12,494	\$4,005	\$149,927	\$104,156	\$149,927
Overhead (G&A of D.L.)	\$28,087	\$25,447	\$337,046	\$310,386	\$337,046
Subtotal of Costs - Contract Year 4	\$227,859	\$341,369	\$2,734,306	\$2,712,553	\$2,734,306
Fixed Fee for Contract Year 4	\$16,406	\$24,579	\$196,870	\$195,304	\$196,870

5. MAINTENANCE/REPAIR COST DETAIL

5.1 MAINTENANCE AND REPAIR COSTS

Maintenance and Repair costs as compared to the monthly threshold

Table 5-1: Maintenance and Repair Costs

	Month	YTD
Grounds	3,551	18,162
Electrical	31,141	60,561
Street	38,086	114,615
Water Distribution	3,489	47,706
Sewer Collection	2,047	19,291
Instrumentation	0	2,996
Mechanical	60,908	139,800
Vehicle	5,340	50,813
Tools	521	1,345
Janitorial/Misc.	906	8,171
HVAC Maintenance	0	3,715
Maintenance Agreements	220	445
Landscaping	0	748
Snow Removal	0	0
Misc. Maintenance	0	141
Total Expenditures	146,210	468,510
Threshold	27,833	334,000
Over (Under)	\$118,377	\$134,510

A SUMMARY OF MAINTENANCE & REPAIR ACTIVITIES:

Water/Street Facilities

Maintenance staff completed 72 preventatives and 27 corrective work orders for the water plants, distribution system, and fleet in April. 75 requests for service were responded to by service personnel. 220 requests for City utility locates from the J.U.L.I.E. call center were completed.

Water distribution system and sewer collection system items:

- Replaced 11 water meters
- Repaired water main Highway 67 across from Equipco
- Repaired water service 408 South A
- Repaired water service 700 South Main
- Rebuilt storm sewer intake 1100 block of East 11th Avenue
- Installed drainage intake, tub, and 600 feet of 6" tile pipe 600 block of South 7th Street

- Replaced part winding starter on High Service Pump #2 at North Water Plant

Wastewater Facilities

Maintenance staff performed 80 preventatives and 5 corrective work orders at the Consolidated Plant, and, 38 preventatives work orders and 5 corrective work order at the Pre-Treatment plant.

- Replaced motor wiring lugs on Pump 1 at Smithfield lift station
- Installed 3” fill valve and repaired pipe on the Aluminate tank at Phos removal plant
- Cleaned and inspected inoperable east clarifier at pre-treatment plant
- Repaired roof at Smithfield lift station
- Pulled pump at Industrial Park lift station- sent in for repair
- Pulled pump at East 2nd Avenue lift station – sent in for repair
- #3 Raw Wastewater pump warranty work including new seal and coolant per Flyght warranty
- Installed new rotor shaft, bearing, and couplings on rotor 6 on the oxidation ditch

Street/Grounds/Right of Way/Fleet

- Various tree removal and trimming
- Scheduled vehicle service work (lube, oil, filters)
- Street sweeping
- Patching
- Prepped North 5th and East Boston intersection for paving
- Replaced hydraulic hose on Komatsu end loader
- Replaced thermostat, heat sensor, water pump, and temperature gauge on New Holland tractor
- Repaired brake chamber on T14
- Replaced brake calipers on T15
- Repaired exhaust manifold on T11
- Replaced radiator on V6 (Astro Van)
- Replaced rear spring U bolt on T16

5.2 CHEMICAL COST DETAIL

Process chemical costs for water treatment

Table 5-2: Process Chemical Costs

	Month	YTD
Chlorine	3,352	25,663
Salt	19,942	208,695
Polyphosphate	5,084	41,823
Total	28,378	276,181
Threshold	22,667	272,000
Over (Under)	\$5,511	\$4,181

6. HEALTH & SAFETY

Staff reviewed the annual Fall Protection lesson from the PureSafe program. PureSafety is an interactive tutorial based safety program used by Woodard Curran for monthly safety topics.

There were no safety incidents in April and the Department has had 1 incident year to date involving a minor hand injury.

7. CAPITAL PROJECTS

Well 10 – awaiting C2 permit, received raw water main construction permit from the Illinois Environmental Protection Agency, contractor is looking at options for installation so as not to risk any excavation issue at the cemetery. City approved pipe alignment of directional boring under North 6th Street. Contractor installing new slab for additional softener at the North Water Plant. Electrical conduit feeding the high service pumps was cut while prepping for new slab, temporary wired back, contractor to pull new wire from MCC to high service pump junction box.

CSO Phase 1 – contractor, (Leander) has secured their bonds and insurance per the contract documents, signatures and notice to proceed have been issued to Leander. Anticipate construction will commence once the weather straightens up.

North WWTP Design – engineering group working on the clarifier design and bio gas feasibility with several deliverables due in June. Site visit scheduled for June 7-8 for the design team